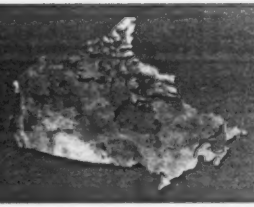

# Canadian Natural Gas

## ›› Monthly Market Update

**September 2010**

›› Oil and Gas Policy, Analysis and Regulatory Affairs Division
Petroleum Resources Branch
Energy Sector

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ISSN 1920-4418

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## Foreword

*The Canadian Natural Gas: Monthly Market Update* is a monthly analytical paper prepared by the Petroleum Resources Branch of Natural Resources Canada. The report provides the most recently available data on natural gas prices and related market fundamentals.

Please direct any comments or questions to Stacey Power at (613) 992-1023, or by email at Stacey.Power@nrcan.gc.ca

## Executive Summary

Partly in response to an increase in the price of natural gas from one year ago, September 2010 drilling is up 287% from September 2009, when drilling reached a multi-year low. Although September 2010 drilling is up substantially from September 2009, year to date drilling remains 19% below 2009 levels.

While the price of natural gas is higher than it was last year, in some cases it continues to fall below the cost of production. In response to this trend, many companies have chosen to target their drilling at the lowest cost and highest producing shale gas plays. A few companies in the United States have also made the move to shut in small amounts of their production until the price environment improves.

Looking ahead, many industry insiders remain bearish and are predicting that gas markets could be weak for an extended period of time.

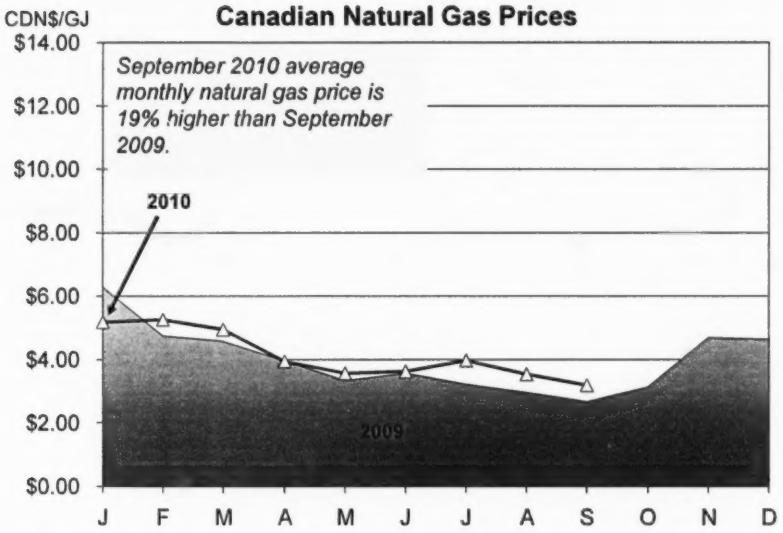
| Natural Gas Market Fundamental | Value | Percentage Change | |
|---|---|---|---|
| | | Month 2010 vs. Month 2009 | Current Month vs. Previous Month |
| Prices, CAN $/GJ (Sept-10) | 3.19 | +19% | -10% |
| Heating Degree Days (Sept-10) | 114 | +34% | +375% |
| Production, Bcf (July-10) | 407 | -5% | +7% |
| Sales, Bcf (July-10) | 150 | +6% | -5% |
| Exports, Bcf (July-10) | 277 | +4% | +13% |
| Imports, Bcf (July-10) | 48 | +26% | -1% |
| Storage, Bcf (Sept-10) | 541 | -3% | +10% |
| Drilling, wells (Sept-10) | 720 | +287% | +373% |

Note: GJ: Gigajoule; Bcf: Billion Cubic Feet

***Sources:***

- *Crude Oil and Natural Gas (Preliminary)*, Statistics Canada
- *Natural Gas Transportation and Distribution, 55-002*, Statistics Canada
- *Supply and Disposition of Crude Oil and Natural Gas, 26-006*, Statistics Canada
- *Drilling Highlights*, Daily Oil Bulletin website: www.dailyoilbulletin.com
- Canadian Natural Gas Focus, GLJ Energy Publications Inc.
- *Natural Gas Storage Survey*, Canadian Enerdata Ltd.
- *Natural Gas Export Statistics*, National Energy Board website: www.neb-one.gc.ca
- Canadian Gas Association, website: www.cga.ca

**Figure 1**

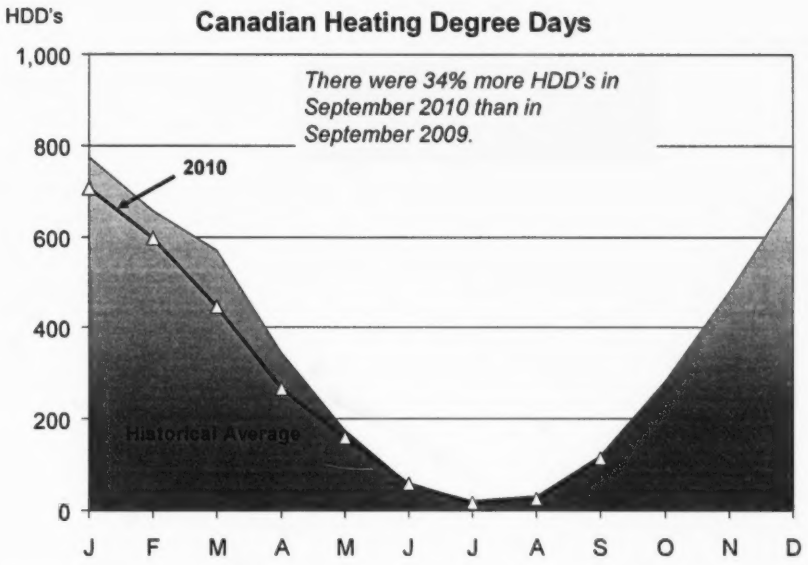



**Source**: GLJ Energy Publications **Note:** Canadian price is the Alberta price at the AECO hub.

Figure 1 illustrates the price of natural gas at the major Canadian pricing point – the Intra-Alberta market, a.k.a. AECO . The price is for gas delivered under a 30-day contract. The Intra-Alberta market is formed by gas delivered to pipelines in Alberta. Gas changes hands via Nova Inventory Transfers (NIT), exchanges at the AECO storage hub, or sales facilitated by the Natural Gas Exchange (NGX). This is a commodity price – a wholesale price in the producing area. Consumer (or "burner tip") prices will also include pipeline transmission and distribution costs, which vary across Canada. Natural gas is commonly measured in gigajoules (GJ) or cubic metres. A gigajoule is an energy unit, which equates to about 27 cubic metres of natural gas.

AECO natural gas prices averaged CDN $3.19/GJ in September 2010, a decrease of 10% from the previous month but a 19% increase from September 2009.

**Figure 2**



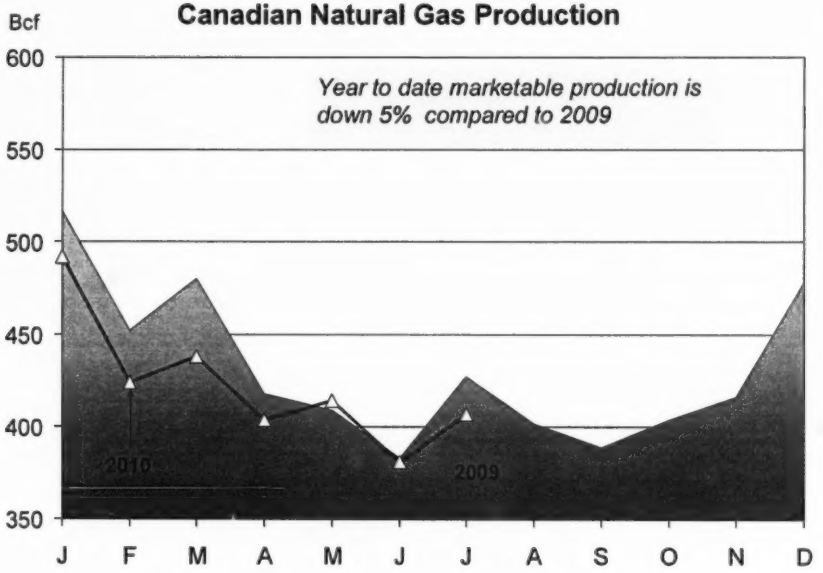

**Source**: Canadian Gas Association, NRCan

Figure 2 shows Canadian heating degree days (HDDs), which are a measure of how cold it is. The more HDDs in any season, the greater is natural gas demand for space heating. If a winter is unusually cold, demand for space heating will respond accordingly and natural gas prices will tend to be stronger. However, during a mild winter, natural gas demand for space heating will be weaker, which will tend to moderate prices.

In September 2010 there were 114 HDDs, 34% more than September 2009, and 375% more than August 2010. On average, September 2010 had 4% fewer HDDs than normal.

**Figure 3**

**Canadian Natural Gas Production**



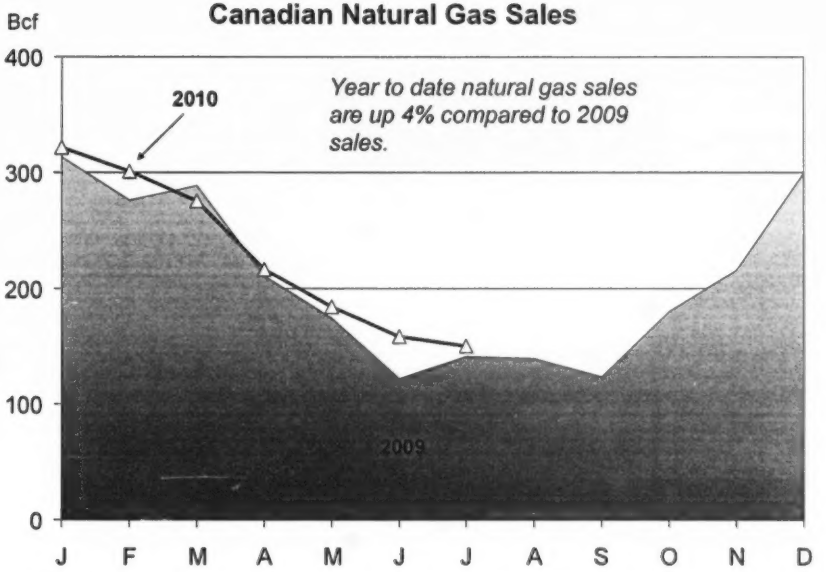

**Source**: Statistics Canada **Note:** Most recent month is a preliminary figure.

Figure 3 shows marketable natural gas production in Canada. Marketable natural gas is the gas available for consumption after processing and excludes producer or plant uses.

Marketable natural gas production in July 2010 was 407 Bcf. Production levels were 7% higher than the previous month, but 5% lower than the previous year.

**Figure 4**

**Canadian Natural Gas Sales**



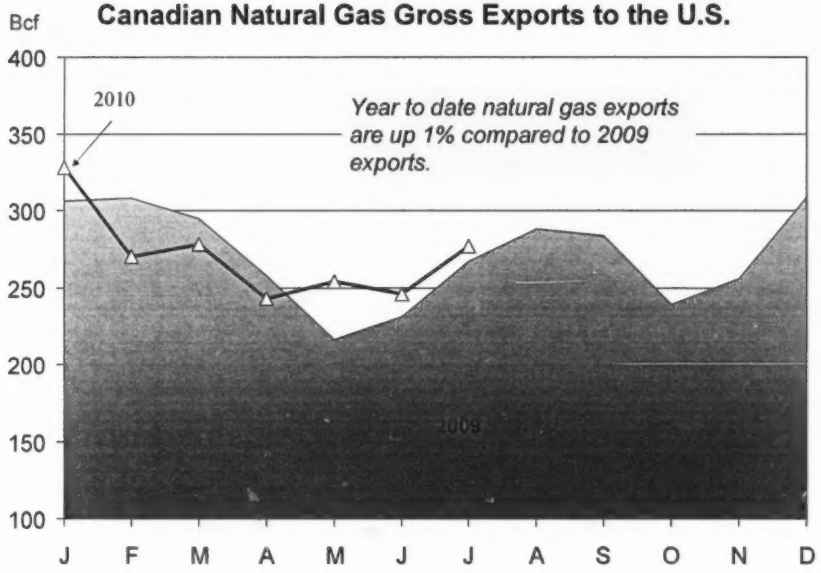

**Source**: Statistics Canada **Note:** Most recent month is a preliminary figure.

Figure 4 illustrates total Canadian natural gas sales. Sales include all natural gas sold to residential and commercial users (for space and water heating, cooking, etc), industries and electricity generating units in Canada. The totals do not include consumption by the natural gas industry itself (e.g., pipeline compressor fuel).

Natural gas sales to Canadian consumers in July 2010 were 5% lower than the previous month but 6% higher than sales in July 2009.

**Figure 5**

**Canadian Natural Gas Gross Exports to the U.S.**



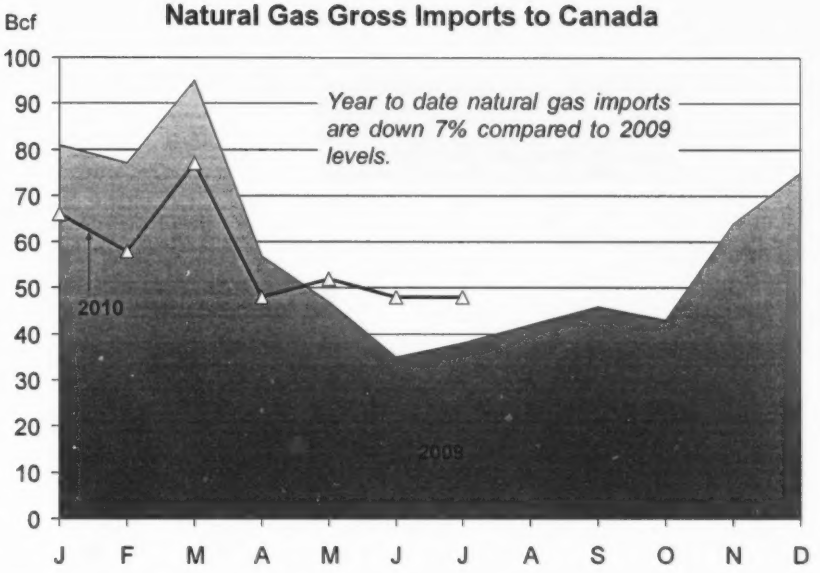

**Source**: National Energy Board

Figure 5 illustrates natural gas exports to the U.S. Canadian natural gas requirements are met mostly by domestic sources, as Canada produces natural gas in excess of what is required for domestic consumption. In comparison, the U.S. consumes more natural gas than it produces, therefore natural gas imports are required to make up the difference. Typically, Canada exports between 50 and 60 per cent of its gas production.

In July 2010 natural gas exports to the U.S. were 277 Bcf. This is a 13% increase from the previous month and a 4% increase from the same time last year.

**Figure 6**

**Natural Gas Gross Imports to Canada**



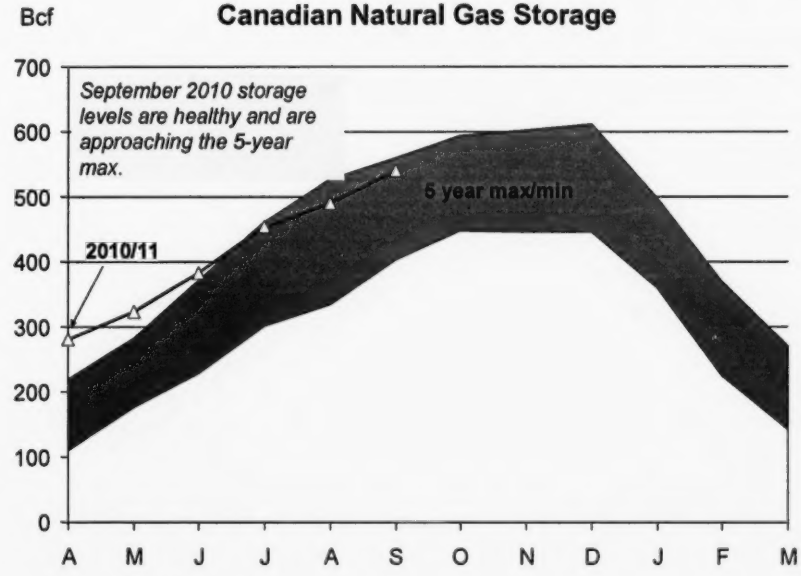

**Source**: National Energy Board

Figure 6 illustrates natural gas imports to Canada. Most natural gas is imported into Canada through major import points in southern Ontario. Imports into southern Ontario will likely rise in the future, as the province purchases more gas from the rest of North America due to flat production in the Western Canadian Sedimentary Basin. Presently, import volumes are significantly less than export volumes, and Canada remains a net exporter of natural gas.

In July 2010, natural gas imports to Canada were 48 Bcf, 1% less than the previous month, but 26% more compared to July 2009.

**Figure 7**

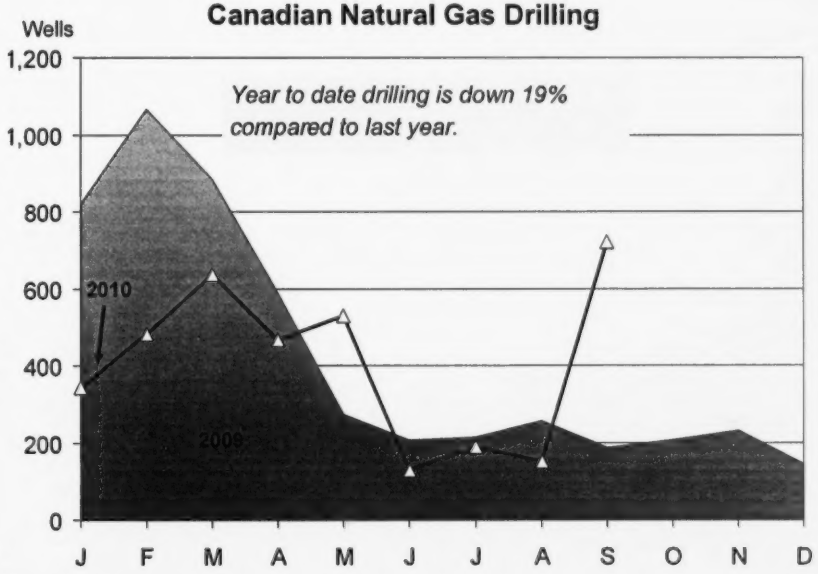
**Canadian Natural Gas Storage**




**Source:** Canadian Enerdata

**Figure 8**

**Canadian Natural Gas Drilling**




**Source:** Daily Oil Bulletin

Figure 7 illustrates natural gas storage levels in Canada. The amount of gas in storage generally follows a seasonal pattern. In the summer, when natural gas demand is low, gas is injected into storage. Storage volumes peak in the fall. In winter, volumes are drawn down, reaching a low point in the spring.

Canadian natural gas storage inventories increased by 50 Bcf from August to September 2010. Storage inventories in September 2010 are down 3% from September 2009 levels.

Figure 8 depicts the number of natural gas well completions in Canada. There is a time-lag between drilling a gas well and starting production, due to the work necessary to connect the new well to the pipeline grid. Drilling is therefore a good indicator of future natural gas supply.

720 natural gas wells were drilled in September 2010, an increase of 373% from the previous month, and an increase of 287% from the previous year.